

7/12  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

RAMA AKELLA  
JOHN P. RANIERI

Serial No.: 10/027,015

Filed: December 21, 2001

For: COMPOSITIONS AND METHODS FOR  
PROMOTING MYOCARDIAL AND  
PERIPHERAL ANGIOGENESIS

Group Art Unit: 3763

Examiner: Unknown

Atty. Dkt. No.: 2103.000500/SBI-091

Customer No.: 45488

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

CERTIFICATE OF MAILING  
37 C.F.R 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

February 25, 2005

Date



Mark D. Moore

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Supplemental Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R. §§ 1.97(g),(h), this Supplemental Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Supplemental Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Supplemental Information Disclosure Statement; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Director is hereby authorized to deduct said fees from Williams, Morgan & Amerson, P.C., Deposit Account No. 50-0786/2103.0005.

Applicants respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,

WILLIAMS, MORGAN & AMERSON  
CUSTOMER NO. 45488

Date: February 25, 2005



---

Mark D. Moore, Ph.D.  
Reg. No. 42,903  
10333 Richmond, Suite 1100  
Houston, Texas 77042  
(713) 934-4084  
(713) 934-7011 (facsimile)

AGENT FOR APPLICANTS

Form PTO-1449 (modified)		Atty. Docket No. SBI-091	Serial No. 10/027,015
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant Rama Akella and John P. Ranieri	
		Filing Date: December 21, 2001	Group: 3763
U.S. Patent Documents <i>See Pages 1-3</i>	Foreign Patent Documents <i>See Page 3</i>	Other Art <i>See Pages 3-5</i>	

### U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A3	2003/0104977	06-2003	Ripamonti <i>et al.</i>	514	2	03-31-2000
	A4	2003/0022828	01-2003	Akella <i>et al.</i>	514	12	12-21-2001
	A5	6,498,142 B1	12-2002	Sampath <i>et al.</i>	514	12	05-06-1996
	A6	2002/0025340	02-2002	Dyer	424	486	08-30-2001
	A7	6,211,157	04-2001	Benedict <i>et al.</i>	514	21	10-16-1998
	A8	6,197,550	03-2001	Hötten <i>et al.</i>	435	69.5	04-03-1998
	A9	6,177,406	01-2001	Wang <i>et al.</i>	514	12	09-05-1997
	A10	6,150,328	11-2000	Wang <i>et al.</i>	514	12	06-14-1991
	A11	6,124,273	09-2000	Drohan <i>et al.</i>	514	55	10-13-1997
	A12	6,120,760	09-2000	Hötten <i>et al.</i>	424	85.1	08-12-1994
	A13	6,051,648	04-2000	Rhee <i>et al.</i>	525	54.1	01-13-1999
	A14	5,994,094	11-1999	Hötten <i>et al.</i>	435	69.1	
	A15	5,981,489	11-1999	Stevenson <i>et al.</i>	514	15	
	A16	5,972,884	10-1999	Cohen <i>et al.</i>	514	12	
	A17	5,965,403	10-1999	Celeste <i>et al.</i>	435	69.4	
	A18	5,932,216	08-1999	Celeste <i>et al.</i>	424	158.1	
	A19	5,928,940	07-1999	Sampath <i>et al.</i>	435	325	
	A20	5,866,364	02-1999	Israel <i>et al.</i>	435	69.1	
	A21	5,854,207	12-1998	Lee <i>et al.</i>	514	2	
	A22	5,849,880	12-1998	Wozney <i>et al.</i>	530	399	
	A23	5,846,770	12-1998	LaVallie <i>et al.</i>	435	69.1	
	A24	5,705,477	01-1998	Sporn <i>et al.</i>	514	2	

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified) FEB 20 2005		Atty. Docket No. SBI-091	Serial No. 10/027,015
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant Rama Akella and John P. Ranieri	
		Filing Date: December 21, 2001	Group: 3763
U.S. Patent Documents <i>See Pages 1-3</i>	Foreign Patent Documents <i>See Page 3</i>		Other Art <i>See Pages 3-5</i>

### U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A25	5,703,043	12-1997	Celeste <i>et al.</i>	514	12	
	A26	5,677,276	10-1997	Dickerson <i>et al.</i>	514	8	
	A27	5,661,007	08-1997	Wozney <i>et al.</i>	435	69.4	
	A28	5,656,587	10-1997	Sporn <i>et al.</i>	514	2	
	A29	5,637,480	06-1997	Celeste <i>et al.</i>	435	69.4	
	A30	5,635,372	06-1997	Celeste <i>et al.</i>	435	69.1	
	A31	5,631,142	05-1997	Wang <i>et al.</i>	435	69.1	
	A32	5,616,490	04-1997	Sullivan <i>et al.</i>	435	366	
	A33	5,595,722	01-1997	Grainger <i>et al.</i>	424	9.2	
	A34	5,543,394	08-1996	Wozney <i>et al.</i>	514	12	
	A35	5,543,392	08-1996	Tomita <i>et al.</i>	514	8	
	A36	5,470,831	11-1995	Whitman <i>et al.</i>	514	16	
	A37	5,459,047	10-1995	Wozney <i>et al.</i>	435	69.1	
	A38	5,371,191	12-1994	Poser <i>et al.</i>	530	350	
	A39	5,328,695	07-1994	Lucas <i>et al.</i>	424	426	
	A40	5,318,957	06-1994	Cid <i>et al.</i>	514	8	
	A41	5,219,576	06-1993	Chu <i>et al.</i>	424	484	
	A42	5,187,076	02-1993	Wozney <i>et al.</i>	435	69.1	
	A43	5,141,905	08-1992	Rosen <i>et al.</i>	435	69.1	
	A445	5,116,738	05-1992	Wang <i>et al.</i>	435	69.1	
	A45	4,950,483	08-1990	Ksander <i>et al.</i>	424	422	
	A46	4,900,673	02-1990	Harper <i>et al.</i>	435	199	

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified) FEB 28 2005		Atty. Docket No. SBI-091	Serial No. 10/027,015
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant Rama Akella and John P. Ranieri	
		Filing Date: December 21, 2001	Group: 3763
U.S. Patent Documents <i>See Pages 1-3</i>	Foreign Patent Documents <i>See Page 3</i>	Other Art <i>See Pages 3-5</i>	

### U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A47	4,895,838	01-1990	McCluer <i>et al.</i>	514	54	
	A48	4,699,788	10-1987	Catsimpoolis <i>et al.</i>	424	104	

### Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B2	EP 0433225 B1	06-1991	Europe	C07K	14/495	Yes
	B3	EP 0516901 A1	12-1992	Europe	A01N	1/02	Yes
	B4	EP 0747066 B1	12-1996	Europe	A61L	24/10	Yes
	B5	WO 97/41880	11-1997	PCT	A61K	38/18	Yes
	B6	WO 99/31136	06-1999	PCT	C07K	14/51	Yes
	B7	WO 99/57146	11-1999	PCT	C07K	14/51	Yes
	B8	WO 02/00244	01-2002	PCT	A61K	38/00	Yes
	B9	WO 02/47713	06-2002	PCT	A61K	38/00	Yes
	B10	WO 03/060076	07-2003	PCT	C12N		Yes

### Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C3	Cuevas <i>et al.</i> , "Fibroblast Growth Factor Protects the Kidney Against Ischemia-Reperfusion Injury," <i>Eur. J. Med. Res.</i> , 4:403-10, 1999.
	C4	Folkman, "Angiogenic Therapy of the Human Heart," <i>Circulation</i> , 97:628-29, 1998.
	C5	Freed <i>et al.</i> , "Neocartilage formation in vitro and in vivo using cells cultured on synthetic biodegradable polymers," <i>J. Biomed. Mater. Res.</i> , 27:11-23, 1993.

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified)	Atty. Docket No. SBI-091	Serial No. 10/027,015
List of Patents and Publications for Applicant's	Applicant Rama Akella and John P. Ranieri	
INFORMATION DISCLOSURE STATEMENT  (Use several sheets if necessary)		
U.S. Patent Documents <i>See Pages 1-3</i>	Foreign Patent Documents <i>See Page 3</i>	Filing Date: December 21, 2001 Group: 3763  Other Art <i>See Pages 3-5</i>

### Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C6	Freedman and Isner, "Therapeutic Angiogenesis for Ischemic Cardiovascular Disease," <i>J. Molecular and Cellular Cardiology</i> , 33:379-93, 2001.
	C7	Hammerman, "Growth Factors in Renal Development," <i>Seminars in Nephrology</i> , 15:291-99, 1995.
	C8	Hirschberg <i>et al.</i> , "Multicenter clinical trial of recombinant human insulin-like growth factor I in patients with acute renal failure," <i>Kidney International</i> , 55:2423-32, 1999.
	C9	Kawauchi <i>et al.</i> , "Fibroblast growth factor enhances expression of TGF $\beta$ -stimulated-clone-22 gene in osteoblast-like cells," <i>Endocrine</i> , 3:833-37, 1995.
	C10	Laham <i>et al.</i> , "Intrapericardial Delivery of Fibroblast Growth Factor-2 Induces Neovascularization in a Porcine Model of Chronic Myocardial Ischemia," <i>J. Pharmacol. Exp. Ther.</i> , 292:795-802, 2000.
	C11	Mueller <i>et al.</i> , "Myocardial angiogenesis induction with bone protein derived growth factors (animal experiment)," <i>Swiss Med. Wkly</i> , 131:23-25, 2001.
	C12	Nakaoka <i>et al.</i> , "Inhibition of Rat Vascular Smooth Muscle Proliferation <i>In Vitro</i> and <i>In Vivo</i> by Bone Morphogenetic Protein-2," <i>J. Clin. Invest.</i> , 100:2824-32, 1997.
	C13	Nishida <i>et al.</i> , "Adenovirus-Mediated Gene Transfer to Nucleus Pulposus Cells," <i>Spine</i> , 23:2437-42, 1998.
	C14	Parsons-Wingerter <i>et al.</i> , "A novel assay of angiogenesis in the quail chorioallantoic membrane: stimulation by bFGF and inhibition by angiostatin according to fractal dimension and grid intersection," <i>Microvasc. Res.</i> , 55:201-14, 1998.
	C15	Prochazka <i>et al.</i> , "Epidermal Growth Factor and Insulin Growth Factor 1 Increase FSH-Stimulated Expansion of Porcine Cumulus Cells in Serum-free Medium," <i>J. Reproduction and Fertility</i> , 25:64, 2000.
	C16	Ramoshebi and Ripamonti, "Osteogenic protein-1, a bone morphogenetic protein, induces angiogenesis in the chick chorioallantoic membrane and synergizes with basic fibroblast growth factor and transforming growth factor-beta1," <i>Anat. Rec.</i> , 259:97-107, 2000.
	C17	Sakaguchi <i>et al.</i> , "A Combination of EGF and IGF-1 Accelerates the Progression of Meiosis in Bovine Follicular Oocytes <i>In Vitro</i> and Fetal Calf Serum Neutralizes the Acceleration Effect," <i>Theriogenology</i> , 54:1327-42, 2000.

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified) <i>RECEIVED JULY 2005</i>		Atty. Docket No. <b>SBI-091</b>	Serial No. <b>10/027,015</b>
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant <b>Rama Akella and John P. Ranieri</b>	
		Filing Date: <b>December 21, 2001</b>	Group: <b>3763</b>
<b>U.S. Patent Documents</b> <i>See Pages 1-3</i>	<b>Foreign Patent Documents</b> <i>See Page 3</i>	<b>Other Art</b> <i>See Pages 3-5</i>	

### **Other Art (Including Author, Title, Date Pertinent Pages, Etc.)**

<b>Exam. Init.</b>	<b>Ref. Des.</b>	<b>Citation</b>
	C18	Schumacher <i>et al.</i> , "Induction of Neoangiogenesis in Ischemic Myocardium by Human Growth Factors," <i>Circulation</i> , 97:645-50, 1998.
	C19	Stelnicki <i>et al.</i> , "Bone Morphogenetic Protein-2 Induces Scar Formation and Skin Maturation in the Second Trimester Fetus," <i>Plastic and Reconstructive Surgery</i> , 101:12-19, 1998.
	C20	Vukicevic <i>et al.</i> , "Osteogenic Protein-1 (Bone Morphogenetic Protein-7) Reduces Severity of Injury After Ischemic Acute Renal Failure in Rat," <i>J. Clin. Invest.</i> , 102:202-14, 1998.
	C21	Wiley and Cunningham, "Epidermal Growth Factor Stimulates Fluid Phase Endocytosis in Human Fibroblasts Through a Signal Generated at the Cell Surface," <i>J. Cellular Biochem.</i> , 19:383-94, 1982.
	C22	Yamamoto <i>et al.</i> , "Histologic evidence that basic fibroblast growth factor enhances the angiogenic effects of transmyocardial laser revascularization," <i>Basic Res. Cardiol.</i> , 95:55-63, 2000.
	C23	Yamashita <i>et al.</i> , "Growth/Differentiation Factor-5 Induces Angiogenesis <i>In Vivo</i> ," <i>Exper. Cell Res.</i> , 235:218-26, 1997.
	C24	Yonggang <i>et al.</i> , "Percutaneous injection of bone morphogenetic protein and polyvinyl pyrrolidone composite," <i>J. Xi'an Medical University</i> , 22:132-33, 2001.

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.